



Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: 29510-13-F

Plant ID: 1610

Effective Date: [Click here to enter a date.](#) Expiration Date: [Click here to enter a date.](#) Fees: \$2,600.00

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

The Keebler Company
2287 Ralph Avenue
Louisville, KY 40216

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant: VOC
Tons/year: <100 tpy

Application No. 29510
35278

Application Received: 6/1/2012
10/12/2012

Permit Writer: Dustin Gohs

Public Notice Date: 7/18/2013

Proposed Permit Date: 7/18/2013

{manager1}
Air Pollution Control Officer
{date1}

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Permit Revisions/Changes

Revision No.	Issue Date	Public Notice Date	Type	Page No.	Description
Initial		7/18/2013	Initial Issuance	All	Initial FEDOOP Permit

Acronyms and Abbreviations

AP-42	- AP-42, Compilation of Air Pollutant Emission Factors, published by USEPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Background Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
FEDOOP	- Federally Enforceable, District Origin Operating Permit
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- hour
in.	- inches
lbs	- pounds
l	- liter
LMAPCD	- Louisville Metro Air Pollution Control District
mm _{Hg}	- millimeters of mercury column height
MM	- million
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- pounds per square inch absolute
QA	- Quality Assurance
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- water column
year	- any period of twelve consecutive months, unless "calendar year" is specified
yr	- year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of applicable fees is not made after receipt of the statement of fees (SOF). The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-0.
5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.
7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or an anticipated noncompliance shall not alter any permit requirement.
9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.
10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, sulfur dioxide, carbon monoxide, photochemical oxidants, hydrocarbons, nitrogen oxides, lead, gaseous fluorides, or Volatile Organic Compounds (VOC) as listed in District Regulation 3.04; any pollutant subject to any standard in District Regulation 7.02; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA; or any combination of greenhouse gasses whose combined global warming potential equals or exceeds 100,000 tons CO₂-equivalent, as defined in 40 CFR 98 (except that prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include biogenic carbon dioxide emissions defined in 40 CFR 52.21(b)(49)(ii)(a)).

Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company. The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.
13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)
7.06	Standards of Performance for New Indirect Heat Exchangers
7.08	Standards of Performance for New Process Operations

Regulation	Title
7.09	Standards of Performance for New Process Gas Streams
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

***Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745***

Emission Unit U1**U1 (Hansen ID: 26555)****U1 Unit Description: Baking Ovens/Cleaning and Sanitizing**

Seven (7) natural gas baking ovens used for manufacturing baked food products

One (1) cleaning and sanitizing operation

U1 Applicable Regulations

Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
5.00	Definitions	All
5.01	General Provisions	All
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	All
5.21	Environmental Acceptability for Toxic Air Contaminants	All
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	All
5.23	Categories of Toxic Air Contaminants	All
6.10	Standard of Performance for Existing Process Gas Streams	All
6.24	Standard of Performance for Existing Sources Using Organic Materials	All
7.06	Standards of Performance for New Indirect Heat Exchangers	1 – 5
7.09	Standards of Performance for New Process Gas Streams	1, 2, 4, 5
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	All

U1 Equipment

Emission Point ID	Description Make/Model	Maximum Capacity	Applicable Regulation	Control Device (Control ID)	Stack ID	Application Date
E1	Baking Oven 2	3.952 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 6.10, 6.24	N/A	N/A	12/28/2006
E2	Baking Oven 3	5.282 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 6.10, 6.24	N/A	N/A	12/28/2006
E3	Baking Oven 4	3.936 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.09, 7.25	N/A	N/A	12/28/2006
E4	Baking Oven 5	4.56 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 6.24, 7.09	N/A	N/A	12/28/2006
E5	Baking Oven 7	7.9 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.06, 7.25	N/A	N/A	12/28/2006
E6	Baking Oven 8	4.5 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 6.24, 7.06	N/A	N/A	12/28/2006
E7	Baking Oven 9	6.232 MMBTU/hr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.09, 7.25	N/A	N/A	12/28/2006
E8	Equipment Cleaning	9,251 gal/yr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.25	N/A	N/A	10/12/2012
E9	Equipment Sanitizing	4,669 gal/yr	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.25	N/A	N/A	10/12/2012

U1 Specific Conditions

S1. Standards (Regulation 2.17, section 5.2)

a. VOC

- i. The owner or operator shall not allow or cause to allow the plant-wide VOC emissions that are discharged into the atmosphere to equal or exceed 100 tons per twelve (12) consecutive month period. (Regulation 2.17, section 5.1) (See Comment 1)
- ii. The owner or operator shall not allow or cause to allow the VOC emissions that are discharged into the atmosphere from baking ovens 2, 3, 5, or 8 to exceed 3,000 pounds per day per oven or 450 pounds per hour per oven. (Regulation 6.24, section 3.3) (See Comment 2)
- iii. The owner or operator shall not allow or cause to allow the VOC emissions that are discharged into the atmosphere from baking ovens 4, 7, and 9 to exceed the following limits: (BACT) (Regulation 7.25, section 3.1) (See Comment 1)

Baking Oven	VOC Emission Limit per Twelve (12) Consecutive Month Period
Oven No. 4	6.0 tons
Oven No. 7	11.0 tons
Oven No. 9	9.5 tons

- iv. The owner or operator shall not allow or cause to allow the VOC emissions that are discharged into the atmosphere from the operation of the cleaning and sanitizing processes, and any future additional equipment for which a BACT Analysis has not been performed, to equal or exceed a combined 5.0 tons per twelve (12) consecutive month period. (Regulation 7.25, section 3.1) (See Comment 3)

b. PM

For baking ovens 7 and 8, the owner or operator shall not cause to be discharged into the atmosphere particulate matter in excess of 0.56 pounds per million BTU actual total heat input. (Regulation 7.06, section 4.1.1) (See Comment 4)

c. Opacity

For baking ovens 7 and 8, the owner or operator shall not cause to be discharged into the atmosphere particulate matter emissions which exhibit greater than 20% opacity. (Regulation 7.06, section 4.2) (See Comment 5)

d. CO

For baking ovens 2, 3, 4, 5, and 9, the owner or operator shall not allow or cause to allow any emissions of carbon monoxide unless the emissions are burned at

1,300°F for 0.5 seconds or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer that is positioned in the working area at the operator's eye level. (Regulation 6.10, section 5 and Regulation 7.09, section 5.1) (See Comment 6)

e. **SO₂**

- i. For baking ovens 2 and 3, the owner or operator shall not cause or allow the release of a process gas stream containing sulfur dioxide with a concentration of 2,000 parts per million by volume at 0% oxygen. (Regulation 6.10, section 4) (See Comment 7)
- ii. For baking ovens 4, 5, and 9, the owner or operator shall not cause or allow the release of a process gas stream containing sulfur dioxide with a concentration greater than 28.63 grains per 100 dry standard cubic feet (dscf) at 0% excess oxygen per oven unless the resulting emissions of sulfur dioxide are less than 40 tons per year and a modeling demonstration pursuant to Regulation 2.11 is made showing attainment and maintenance of the NAAQS for sulfur dioxide. (Regulation 7.09, section 4) (See Comment 7)
- iii. For baking ovens 7 and 8, the owner or operator shall not cause to be discharged into the atmosphere any gases which contain sulfur dioxide in excess of 1.0 pounds per million BTU actual heat input. (Regulation 7.06, section 5.1.1) (See Comment 4)

f. **TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21)
- ii. The owner or operator shall not allow or cause to allow the emissions of ammonia that are discharged into the atmosphere from each baking oven or the cleaning and sanitizing process to exceed 48,000 pounds per twelve (12) consecutive month period and 54 pounds per hour per piece of equipment. (Regulation 5.21, section 4.3) (See Comment 8)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

Records shall be readily retrievable and shall be maintained for five (5) years prior to disposal.

a. **VOC**

- i. The owner or operator shall record the monthly usage of flavoring materials for each baking oven. (See Comment 1)
- ii. The owner or operator shall record the monthly usage of cleaning and sanitizing materials. (See Comment 3)

- iii. The owner or operator shall monthly calculate and record the VOC emissions (in tons) generated from each baking oven based on the monthly flavoring throughput records, using the formulas shown below, or other method approved by the District. (See Comment 1 and Comment 2)

- 1) For flavorings containing Low Volatile Chemicals:

$$\text{VOC (ton/month)} = (\text{X lb of flavoring/month}) * (\text{LVC \%}) * (\text{LVC Emission Percentage}) * (1 \text{ ton}/2000 \text{ lb})$$

- 2) For flavorings containing Ethanol:

$$\text{VOC (ton/month)} = (\text{X lb of flavoring/month}) * (\text{Ethanol \%}) * (1 \text{ ton}/2000 \text{ lb})$$

- iv. The owner or operator shall, monthly, calculate and record the VOC emissions (in tons) generated from the cleaning and sanitizing processes, based on the monthly cleaning and sanitizing material throughput records, using the formula shown below, or other method approved by the District. (See Comment 3)

For cleaning and sanitizing materials:

$$\text{VOC (ton/month)} = (\text{X gal of material/month}) * (\text{Density, lb/gal}) * (\text{VOC Content, \%}) * (1 \text{ ton}/2000 \text{ lb})$$

- v. The owner or operator shall, monthly, calculate and record the monthly and twelve (12) consecutive month VOC emissions from the baking ovens to show compliance with Specific Condition S1.a using the monthly VOC emissions calculated by the formulas shown in Specific Conditions S2.a.iii.1) and S2.a.iii.2). (See Comment 2)

- vi. The owner or operator shall, monthly, calculate and record the monthly and twelve (12) consecutive month VOC emissions from the cleaning and sanitizing processes, as well as any additional equipment installed which emits the pollutant VOC, to demonstrate compliance with Specific Condition S1.a.iv.

- 1) For the cleaning and sanitizing, the owner or operator shall use the calculation methodology shown in Specific Condition S2.a.iv.
2) For any additional equipment installed, the owner or operator shall use a calculation method approved by the District.

b. **PM**

There are no monitoring or record keeping requirements for PM compliance. (See Comment 4)

c. **Opacity**

There are no monitoring or record keeping requirements for Opacity compliance. (See Comment 5)

d. **CO**

There are no monitoring or record keeping requirements for CO compliance. (See Comment 6)

e. **SO₂**

There are no monitoring or record keeping requirements for SO₂ compliance. (See Comment 4 and Comment 7)

f. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis levels.

iii. The owner or operator shall record the monthly usage of ammonium bicarbonate usage for baking ovens 2, 3, and 5. (See Comment 8)

iv. For baking ovens 2, 3, and 5, the owner or operator shall calculate and record emissions, in pounds, of the ammonia emissions generated for each baking oven, based on the monthly ammonium bicarbonate usage records as required by Specific Condition S2.a.i, using the formula shown below, or other method approved by the District. (See Comment 8)

For ammonium bicarbonate usage:

Ammonia (lb/month) = (X lb of ammonium bicarbonate/month) *
(Stoichiometric ratio of ammonia to ammonium bicarbonate, 0.215 lb/lb)

v. For baking ovens 2, 3, and 5, the owner or operator shall monthly calculate and record the monthly and twelve (12) consecutive month ammonia emissions for each baking oven to show compliance with Specific Condition S1.f.ii, using the monthly ammonia emissions calculated using the formula shown in Specific Condition S2.f.iv.

S3. Reporting (Regulation 2.17, section 5.2)

The owner or operator shall submit annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. The compliance reports shall be postmarked within sixty (60) days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.17, section 3.5:

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”

- Signature and title of the responsible official of the company.

The Annual Compliance Report is due on or before the following date of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 st through December 31 st	March 1 st

The Annual Compliance Certification is due on or before the following date of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 st through December 31 st	April 15 th

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide notification (Form 100A) to the District within thirty (30) calendar days following the date a change in the designated RO occurs for this facility.

a. **VOC**

The owner or operator shall report, annually, the monthly totals and the monthly twelve (12) consecutive month totals of the tons of VOC emitted for each piece of equipment.

b. **PM**

There are no reporting requirements for this equipment for PM.

c. **Opacity**

There are no reporting requirements for this equipment for Opacity.

d. **CO**

There are no reporting requirements for this equipment for CO.

e. **SO₂**

There are no reporting requirements for this equipment for SO₂.

f. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability

Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21, sections 4.22 – 4.24)

- iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months of a change of a raw material as described in S2.f.ii.
- iv. The owner or operator shall report, annually, the monthly totals and the monthly twelve (12) consecutive month totals of the tons of ammonia emitted by baking ovens 2, 3, and 5.

U1 Comments

1. The company has the potential to emit greater than 100 tpy of VOC; however, the company submitted a BACT Analysis and requested a plant-wide VOC limit of 99 tpy and individual VOC limits for baking ovens 4, 7, and 9. The District is in agreement with the BACT Analysis submitted.
2. A one-time compliance demonstration has been performed for baking ovens 2, 3, 5, and 8 for VOCs, and the equipment cannot exceed the 3,000 pounds per day per oven or 450 pounds per hour per oven requirements. However, the VOC emissions shall be calculated to demonstrate compliance with Specific Condition S1.a.i.
3. The company requested a limit of 4.9 tpy to remain below the 5 tpy limit as specified in Regulation 7.25.
4. A one-time PM and SO₂ compliance demonstration has been performed for baking ovens 7 and 8, using AP-42 emission factors and combusting natural gas, and the pounds per million BTU emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, or reporting requirements for baking ovens 7 and 8 with respect to PM and SO₂ emission limits.
5. It has been determined that using natural gas combustion, these ovens will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.
6. The CO emissions from baking ovens 2, 3, 4, 5, and 9 are created by the combustion of natural gas to generate heat. The nominal flame temperature of greater than 2,000°F exceeds the 1,300°F temperature required by Regulation 6.10, section 5 and Regulation 7.09, section 5.1. Therefore, the District has determined that this will be equivalent to a direct flame afterburner. Therefore, there are no monitoring, record keeping, or reporting requirements for these ovens with respect to CO emission limits.
7. A one-time SO₂ compliance demonstration has been performed for baking ovens 2, 3, 4, 5, and 9 using AP-42 emission factors and combusting natural gas, and the SO₂ emission standards of Regulation 6.10 and Regulation 7.09 cannot be exceeded uncontrolled. Therefore, there are no monitoring, record keeping, or reporting requirements for these ovens with respect to SO₂ emission limits.
8. A one-time ammonia (TAC) compliance demonstration has been performed for the baking ovens and the baking ovens cannot exceed the lb/hr standard. However, baking ovens 2, 3, and 5 have the potential to exceed the lb/yr standard. Therefore, compliance

requirements are necessary for baking ovens 2, 3, and 5, but there are no monitoring, record keeping, or reporting requirements for baking ovens 4, 7, 8, and 9 with respect to ammonia. In addition, there are potential ammonia emissions from the cleaning and sanitizing processes; however, the potential emissions are below the de minimis lb/hr and lb/yr standards. Therefore, there are no monitoring, record keeping, or reporting requirements for the cleaning and sanitizing processes with respect to ammonia.

9. The baking ovens were previously permitted under operating permit 230-08-O.

Emission Unit U2**U2 (Hansen ID: 37135)****U2 Unit Description: Sugar Grinding**

One (1) Bauermeister sugar grinding system, model UMT 4.3

U2 Applicable Regulations

Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
7.08	Standards of Performance for New Process Operations	1 – 3

U2 Equipment

Emission Point ID	Description Make/Model	Applicable Regulation	Control Device (Control ID)	Stack ID	Application Date
E8	Sugar Grinder	7.08	C1	N/A	10/12/2012

U2 Controls

Control ID	Description	Make/Model	Maximum Capacity	Pollutant Controlled	Application Date
C1	Dust Collection System No. 1	Donaldson Torit/DF04-16 EDAP	5,500 acfm	PM, PM ₁₀	10/12/2012

U2 Specific Conditions**S1. Standards (Regulation 2.17, section 5.2)****a. PM**

- i. The owner or operator shall not allow PM emissions to exceed 10.62 lb/hr from the sugar grinding process. (Regulation 7.08, section 3.1.2) (See Comment 1)
- ii. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.03, section 5.1)

b. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. PM

- i. The owner or operator shall maintain monthly records of the type and amount of products transferred to the sugar grinding equipment.
- ii. The owner or operator shall maintain daily records of the hours of operation of the sugar grinding equipment.
- iii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.
- iv. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
 - 1) Date;
 - 2) Start time and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions during the bypass, in lb/hr;
 - 5) Summary of the cause or reason for each bypass event;
 - 6) Corrective action taken to minimize the extent or duration of the bypass event, and;

- 7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
 - v. The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the dust collector for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.
- b. **Opacity**
- i. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
 - ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with [40 CFR Part 60, Appendix A](#), within 24 hours of the initial observation.
 - iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. Reporting (Regulation 2.17, section 5.2)

The owner or operator shall include the following information in the annual compliance report.

a. **PM**

The owner or operator shall clearly identify all deviations from permit requirements in the annual report and include the following information:

- i. Emission unit ID number and emission point ID number;
- ii. Identification of all times the control device is not in operation and the emissions exceeded the lb/hr PM limit;
- iii. Calculated lb/hr PM emissions during the event;
- iv. Reason for excess emissions;
- v. Description of corrective action taken to prevent future exceedances;
- vi. A negative declaration if no deviations occur during the reporting period;

- vii. Identification of all times the monthly control device inspections are missed; and
- viii. A negative declaration if all the control device inspections are completed.

b. **Opacity**

The following information shall be included in the annual reports:

- i. Identification of all times visible emissions were observed;
- ii. The date, time, and results of each Method 9 that exceeded the opacity standard; and
- iii. A description of any corrective action taken for each exceedance.

U2 Comments

- 1. A one-time PM compliance demonstration was performed for this equipment and the lb/hr standard can be exceeded uncontrolled, but the standard cannot be exceeded controlled.
- 2. This equipment was previously permitted under construction permit 36403-12-C.

Emission Unit U3**U3 (Hansen ID: 37156)****U3 Unit Description: Invert Sugar Process**

One (1) invert sugar process which converts sucrose to fructose and glucose using heat and hydrochloric acid

U3 Applicable Regulations

Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
5.00	Definitions	All
5.01	General Provisions	1, 2, 3, 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1, 2, 3, 4, 5, 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1, 2, 3, 4, 5
5.22	Categories of Toxic Air Contaminants	1, 2, 3, 4, 5, 6
5.23	Standards of Performance for New Process Operations	1, 2, 3 and 5

U3 Equipment

Emission Point ID	Description Make/Model	Applicable Regulation	Control Device (Control ID)	Stack ID	Application Date
E9	Invert Sugar Process	2.71, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23	N/A	N/A	9/8/2004

U3 Specific Conditions

S1. Standards (Regulation 2.17, section 5.2)

a. TAC

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21) (See Comment)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. TAC

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases.

S3. Reporting (Regulation 2.17, section 5.2)

The owner or operator shall include the following information in the annual compliance report.

a. TAC

- i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.
- ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)
- iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months of a change of a raw material as described in S3.a.ii.

U3 Comment

The TAC emissions from the invert sugar process are considered to be “de minimis emissions” by the District, as per Regulation 5.21, section 4.14. Regulation 5.21, section 4.14 which states that an existing source may exclude emissions of a Category 2 TAC if the source did not report that TAC in the 2007 Toxics Release Inventory (2007 TRI). As part of the 2007 TRI, the source reported only emissions of ammonia. Therefore, at this time, there are no monitoring, record keeping, or reporting requirements. If there are any modifications made to this equipment, the equipment will no longer be considered existing, and the chlorine emissions will no longer be excluded from the TAC Analysis.

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all the conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance.

Off-Permit Documents

There are no off-permit documents associated with this permit.

Alternative Operating Scenario

The company requested no alternate operating scenario in its FEDOOP Application.

Insignificant Activities

Equipment	Quantity	PTE (tpy)	Basis for Exemption
York Shipley Natural Gas Boiler	1	2.16 (NO _x)	Regulation 2.02, section 2.1.1
Evaporative Condensers	3	4.325 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
Railcar Unloading	1	0.2067 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
Flour Silos	4	0.938 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
Sugar Silos	2	0.3036 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
Process Hoppers	10	0.63 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
Process Mixers	10	0.63 (PM ₁₀)	Regulation 2.16, section 1.23.1.1
CO ₂ Powdered Sugar Mixers	2	1.49 (PM ₁₀)	Regulation 2.16, section 1.23.1.1

Insignificant Activity IA1**IA1 (Hansen ID: 37149)****IA1 Unit Description: Boiler**

One (1) York Shipley natural gas boiler, with a capacity of 5.021 MMBTU/hr

IA1 Applicable Regulations

Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
7.06	Standards of Performance for New Indirect Heat Exchangers	1 – 5

IA1 Equipment

Emission Point ID	Description Make/Model	Maximum Capacity	Applicable Regulation	Control Device (Control ID)	Stack ID	Application Date
E10	York Shipley Boiler	5.021 MMBTU/hr	2.17, 7.06	N/A	N/A	10/12/2012

IA1 Specific Conditions**S1. Standards (Regulation 2.17, section 5.2)****a. PM**

The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.56 pounds per million BTU actual total heat input. (Regulation 7.06, section 4.1.4) (See Comment 1)

b. Opacity

The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity. (Regulation 7.06, section 4.2) (See Comment 2)

c. SO₂

The owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 pounds per million BTU actual total heat input for combustion of gaseous fuels. (Regulation 7.06, section 5.1.1) (See Comment 1)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. PM

There are no monitoring or record keeping requirements for PM compliance. (See Comment 1)

b. Opacity

There are no monitoring or record keeping requirements for Opacity compliance. (See Comment 2)

c. SO₂

There are no monitoring or record keeping requirements for SO₂ compliance. (See Comment 1)

S3. Reporting (Regulation 2.17, section 5.2)**a. PM**

There are no routine compliance reporting requirements for this equipment.

b. Opacity

There are no routine compliance reporting requirements for this equipment.

c. **SO₂**

There are no routine compliance reporting requirements for this equipment.

IA1 Comments

1. The District has performed a one-time PM and SO₂ compliance demonstration for the boiler, using AP-42 emission factors and combusting natural gas, and the pounds per million BTU emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to PM and SO₂ emission limits.
2. The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

Insignificant Activity IA2**IA2 (Hansen ID: 37149)****IA2 Unit Description: Miscellaneous Equipment**

Three (3) Imeco XLP evaporative condensers:

One (1) model XL-415, with a capacity of 600 gpm

One (1) model XL-630, with a capacity of 900 gpm

One (1) model XL-660, with a capacity of 900 gpm

One (1) railcar unloading operation

Four (4) flour silos (Flour Silos No. 1 – 4)

Two (2) sugar silos (Sugar Silos No. 1 and 2)

Ten (10) process hoppers (Hoppers 1 – 10)

Ten (10) process mixers (Mixers 1 -10)

Two (2) CO₂ powdered sugar mixers (CO₂ Powdered Sugar Mixers No. 1 and 2)

IA2 Applicable Regulations

Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
6.09	Standards of Performance for Existing Process Operations	1 – 3
7.08	Standards of Performance for New Process Operations	1 – 3

IA2 Equipment

Emission Point ID	Description Make/Model	Applicable Regulation	Control Device (Control ID)	Stack ID	Application Date
E11	Evaporative Condenser 1/ XLP XL-415	2.17, 7.08	N/A	N/A	10/12/2012
E12	Evaporative Condenser 2/ XLP XL-630	2.17, 7.08	N/A	N/A	10/12/2012
E13	Evaporative Condenser 3/ XLP XL-660	2.17, 7.08	N/A	N/A	10/12/2012
E14	Railcar Unloading	2.17, 7.08	C3	N/A	12/28/2006
E15	Flour Silos	2.17, 6.09	C3	N/A	12/28/2006
E16	Sugar Silos	2.17, 6.09	C3	N/A	12/28/2006
E17	Process Hoppers	2.17, 6.09	C4	N/A	12/28/2006
E18	Process Mixers	2.17, 6.09	C2	N/A	12/28/2006
E19	CO ₂ Powdered Sugar Mixers	2.17, 6.09	C2	N/A	12/28/2006

IA2 Controls

Control ID	Description	Make/Model	Maximum Capacity	Pollutant Controlled	Application Date
C2	Dust Collection System No. 2	Donaldson Torit/TD-486	1,500 acfm	PM, PM ₁₀	10/12/2012
C3	Dust Collection System No. 3	Donaldson Torit/TD-486	1,500 acfm	PM, PM ₁₀	10/12/2012
C4	Dust Collection System No. 4	Donaldson Torit/TD-486	3,000 acfm	PM, PM ₁₀	10/12/2012

IA2 Specific Conditions**S1. Standards (Regulation 2.17, section 5.2)****a. PM**

- i. The owner or operator shall not allow PM emissions to exceed 38.58 lb/hr for Evaporative Condenser 1. (Regulation 7.08, section 3.1.2) (See Comment 1)
- ii. The owner or operator shall not allow PM emissions to exceed 41.17 lb/hr for Evaporative Condensers 2 and 3. (Regulation 7.08, section 3.1.2) (See Comment 1)
- iii. The owner or operator shall not allow PM emissions to exceed 12.51 lb/hr for Railcar Unloading. (Regulation 7.08, section 3.1.2) (See Comment 1)
- iv. The owner or operator shall not allow PM emissions to exceed 17.20 lb/hr for each Flour Silo. (Regulation 6.09, section 3.2) (See Comment 1)
- v. The owner or operator shall not allow PM emissions to exceed 12.85 lb/hr for each Sugar Silo. (Regulation 6.09, section 3.2) (See Comment 1)
- vi. The owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for each Process Hopper. (Regulation 6.09, section 3.2) (See Comment 1)
- vii. The owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for each Process Mixer. (Regulation 6.09, section 3.2) (See Comment 1)
- viii. The owner or operator shall not allow PM emissions to exceed 12.05 lb/hr for each CO₂ Powdered Sugar Mixer. (Regulation 6.09, section 3.2) (See Comment 1)

b. Opacity

The owner or operator shall not allow visible emissions from any emissions point to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1) (Regulation 6.09, section 3.1)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. PM

There are no monitoring or record keeping requirements for this equipment. (See Comment 2)

b. Opacity

There are no monitoring or record keeping requirements for this equipment. (See Comment 2)

S3. Reporting (Regulation 2.17, section 5.2)

a. **PM**

There are no compliance reporting requirements for this equipment.

b. **Opacity**

There are no compliance reporting requirements for this equipment.

IA2 Comments

1. A one-time PM compliance demonstration was performed for each piece of equipment listed in this IA emission unit, and the lb/hr standard cannot be exceeded uncontrolled. Therefore, there are no monitoring, record keeping, or reporting requirements with respect to PM lb/hr emission limits.
2. The District has determined that these pieces of equipment do not require monitoring or record keeping because the equipment is considered insignificant, and the source is not a major source for PM emissions.
3. With the exception of the evaporative condensers, this equipment was previously permitted under operating permits 227-08-O, 228-08-O, and 229-08-O.

FEDOOP Fee Comment

As stated in Regulation 2.08, section 12, as of May 15, 2013, the District has adopted a new fee structure. As a result, The Keebler Company will be required to pay initial issuance fees as well as annual fees.

The initial issuance fee for a FEDOOP is \$2,500.00 in accordance with the *Schedule of Fees* table in Regulation 2.08, section 12. This fee shall be paid to the District prior to the issuance of the permit.

In addition, a fee of \$100.00 is included for a De Minimis Determination for ammonia.

Therefore, the overall initial issuance fee for this permit is \$2,600.00.

The annual fees will be \$1,500.00 for the operating permit and \$5,838.12 for the STAR Program. These fees will be charged annually and billed at a later date. The annual fees are not to be submitted with the initial issuance fees.

Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers which are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate based on limits);
- ☐ 10. Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. List the type and manufacturer of the control equipment if any;
- ☐ 16. List the control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test; note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
 - Sample identification and chain-of-custody procedures;
 - Are audit samples required for this test Method (EPA contact number for audit samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
 - Audit sample provider;

- Number of audit samples to be used:
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;
- ☐ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
 - Method 1 if stack is >12"
 - Method 1a if stack is between 4" and 12"
 - Alternate method of determination for <4"
 - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.

End of operating permit